

Application No. 10/065,959
Docket No. 17MY-7106
Amendment dated January 30, 2004
Reply to Office Action of October 30, 2003

REMARKS

In the Office Action, the Examiner reviewed claims 1-12 of the above-identified US Patent Application, with the result that claims 1-8 and 10-12 were rejected under 35 USC §102 in view of U.S. Patent No. 5,254,413 to Maricocchi, and claim 9 was rejected under 35 USC §103 in view of Maricocchi in further view of U.S. Patent Application Publication 2003/0152705 to Pfaendtner et al. (Pfaendtner). In response, Applicants have amended the claims as set forth above. More particularly:

Independent claims 1 and 10 have been amended to incorporate the limitations of dependent claim 4, namely, that the slurry is applied as a substantially uniform coating.

Independent claims 1 and 10 have been further amended to recite that the slurry contains an inorganic binder solution (in addition to the aluminum particles). Support for this amendment can be found in Applicants' specification at paragraphs [0003] and [0018].

Independent claim 10 has also been amended to recite that the coating is dried before the heating step. Support for this amendment can be found in Applicants' specification at paragraph [0020].

In view of its limitations being incorporated into claim 1, claim 4 has been amended to recite a limitation that finds support in Applicants' specification at paragraph [0018].

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Dependent claims 11 and 12 (which depend from claim 10) have been amended to correctly recite that these claims depend from claim 10, and not claim 11 as inadvertently stated in the claims as filed.

Dependent claims 5, 11 and 12 have been amended to correspond to the above-noted amendments to their parent claims 1 and 10, respectively.

Independent claim 10 and new dependent claim 14 (which depends from claim 1) now specify that the slurry consists essentially of the aluminum particles and inorganic binder solution, while new dependent claims 13 and 15 (which depend from claims 10 and 1, respectively) now specify that the slurry consists of the aluminum particles, inorganic binder solution, silicon and chromia. Support for the latter amendment can be found in Applicants' specification at paragraph [0018].

Finally, new dependent claim 16 has been presented to recite, as in original claim 11, that the slurry is flowed through the hole in the component to deposit the coating.

Applicants believe that the above amendments do not present new matter. Favorable reconsideration and allowance of claims 1-16 are respectfully requested in view of the above amendments and the following remarks.

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Rejection under 35 USC §102

Independent claims 1 and 10 and their dependent claims 2-8, 11 and 12 were rejected under 35 USC §102(b) as being anticipated by Maricocchi. Applicants respectfully request reconsideration of this rejection in view of the amendments presented above as well as the following comments.

As noted in §2131 of the MPEP:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the ...claim. The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e. identity of terminology is not required. (Citations omitted).

Applicants' amended independent claims 1 and 10 require applying to a component surface a substantially uniform coating of an activator-free slurry that contains aluminum particles in an inorganic binder solution. The component is then heated to melt the aluminum particles and diffuse aluminum into the surface of the component and thereby form a diffusion aluminide coating without damaging a ceramic coating also present on the component.

In contrast, though Maricocchi discloses the use of an activator-free material to deposit and form a diffusion aluminide coating, Maricocchi does not disclose that his material is applied as a coating. Instead, Maricocchi's material is a powder mixture of a

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metallic source of aluminum and a ceramic powder (column 5, lines 8-16) and is packed around the surface to be coated (column 5, lines 39-45). While Maricocchi discloses that the powder mixture may be in a liquid suspension (column 5, lines 28-31), Maricocchi does not disclose that the resulting mixture can be applied as a coating, or applied by spraying (see claim 4), or flowed through an internal passage (see claims 11 and 16). Maricocchi also does not disclose that the mixture contains a binder solution.

In view of the above, Applicants believe that Maricocchi does not anticipate independent claims 1 or 10 nor any of their dependent claims under the test for anticipation set forth at MPEP §2131, and therefore respectfully request withdrawal of the rejection under 35 USC §102.

Rejection under 35 USC §103

Dependent claim 9 was rejected under 35 USC §103(a) as being unpatentable over Maricocchi in view of Pfaendtner, the latter of which is a 102(e)/103 reference. Applicants' invention and Pfaendtner were commonly assigned at the time the present invention was made, as evidenced by the assignment records of the U.S. Patent and Trademark Office. 37 CFR 1.104(a)(5)(i); MPEP 706.02(I)(2)(II)(A). Therefore, as discussed at MPEP 706.02(I)(1), 35 USC §103(c) disqualifies Pfaendtner as prior art against Applicants' claimed invention, and Applicants' respectfully request withdrawal of the §103 rejection in which Pfaendtner is applied as a reference.


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Closing

In view of the above, Applicants believe that all the rejections to their claims has/have been overcome, and that the claims define patentable novelty over all the references, alone or in combination, of record. It is therefore respectfully requested that this patent application be given favorable reconsideration.

Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

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